

We claim:

- 1. A method of marking a solid article or substance, comprising the following steps:
dissolving a water-insoluble medium in a first solvent to form a first mixture;
mixing a nucleic acid solution with an intermediate solution to form a second mixture;
mixing the second mixture with the first mixture to form a homogenous third mixture;
marking the article or substance with the third mixture containing said nucleic acid; and
drying the labeled article or substance;
wherein the medium is an inert medium and is not deteriorative to the article or substance, and
wherein the intermediate solution increases the miscibility between the first mixture and the second mixture.**
- 2. The method as claimed in claim 1, wherein the water-insoluble medium is a polymeric substance.**
- 3. The method as claimed in claim 2, wherein the polymeric substance is selected from a group consisting of polycarbonate (PC), polymethyl methacrylate (PMMA), polystyrene (PS), and polypropylene (PP).**
- 4. The method as claimed in claim 1, wherein the first solvent is a non-polar solvent.**
- 5. The method as claimed in claim 4, wherein the non-polar solvent is selected from a group consisting of chloroform, dichloromethane, xylene and toluene.**
- 6. The method as claimed in claim 1, wherein the intermediate solution is a semi-polar solvent.**
- 7. The method as claimed in claim 6, wherein the intermediate solution is selected from a group consisting of methanol, ethanol, acetone, glycerol and their mixture.**

8. The method as claimed in claim 1, wherein the nucleic acid is selected from a group consisting of a natural and a synthetic nucleic acid.
9. The method as claimed in claim 8, wherein the synthetic nucleic acid is a synthetic vector.
10. The method as claimed in claim 8, wherein the synthetic nucleic acid is a nucleic acid fragment.
11. A method of marking a water insoluble liquid, comprising the following steps:
 - dissolving a nucleic acid in a aqueous solution to form a first mixture;
 - mixing the first mixture with an intermediate solution to form a second mixture;
 - mixing the second mixture with a water insoluble solvent to form a homogenous third mixture; and
 - mixing and marking the liquid with the third mixture;
 - wherein the intermediate solution increases the miscibility between the second mixture and the water insoluble solvent.
12. The method as claimed in claim 11, wherein the water insoluble solvent is a non-polar solvent.
13. The method as claimed in claim 12, wherein the non-polar solvent is selected from a group consisting of chloroform, dichloromethane, xylene and toluene.
14. The method as claimed in claim 11, wherein the intermediate solution is a semi-polar solvent.
15. The method as claimed in claim 14, wherein the intermediate solution is selected from a group consisting of methanol, ethanol, acetone, glycerol and their mixture.
16. The method as claimed in claim 11, wherein the nucleic acid is selected from a group consisting of a natural and a synthetic nucleic acid.
17. The method as claimed in claim 16, wherein the synthetic nucleic acid

comprises a synthetic vector.

- 18.** The method as claimed in claim **16**, wherein the synthetic nucleic acid comprises a nucleic acid fragment.